

Listing Of Claims

Claims 1-169 (Canceled)

170. (previously presented) A semiconductor component comprising:
a thinned semiconductor die having a circuit side, a back side, four peripheral edges, and a plurality of die contacts on the circuit side;
a plurality of contact bumps on the die contacts;
a first polymer layer comprising a self planarizing thermoset underfill film covering the circuit side and the peripheral edges, the first polymer layer having a first planar surface and edge polymer layers covering and rigidifying the peripheral edges; and
a second polymer layer covering the back side having a second planar surface,
the first polymer layer and the second polymer layer encapsulating the die on six sides and supporting the die, the contact bumps and the peripheral edges.

171. (previously presented) The semiconductor component of claim 170 wherein the die comprises a tested and burned in die and the component comprises a known good component (KGC).

172. (previously presented) The semiconductor component of claim 170 wherein the underfill film cures and planarizes at a temperature of about 200-250 °C, has a Young's modulus of about 4G Pascal, and a coefficient of thermal expansion (CTE) of about 33 parts per million per °C.

173. (previously presented) The semiconductor component of claim 170 wherein the second polymer layer comprises the underfill film.

174. (withdrawn) The semiconductor component of claim 170 wherein the first polymer layer and the second polymer layer have beveled edges.

175. (previously presented) The semiconductor component of claim 170 further comprising a plurality of terminal contacts on the contact bumps.

176. (previously presented) The semiconductor component of claim 170 wherein the first polymer layer has a thickness which is less than a height of the contact bumps and each contact bump is surrounded by a portion of the first polymer layer.

177. (previously presented) The semiconductor component of claim 170 wherein the die includes conductive vias in electrical communication with the die contacts and the contact bumps.

178. (withdrawn) The semiconductor component of claim 170 wherein the die contacts comprise bond pads.

179. (withdrawn) The semiconductor component of claim 170 wherein the die contacts comprise redistribution pads.

Claims 180-261 (canceled)

262. (previously presented) The semiconductor component of claim 170 wherein the die contacts comprise a solderable metal, and the contact bumps comprise solder.

263. (previously presented) The semiconductor component of claim 170 further comprising a plurality of terminal contacts on the die in electrical communication with the contact bumps in a standardized grid array.

264. (previously presented) The semiconductor component of claim 170 further comprising a plurality of terminal contacts comprising ball bonds on the contact bumps.

265. (previously presented) The semiconductor component of claim 170 wherein the first polymer layer on each edge comprises a portion of a polymer filled trench.

266. (previously presented) The semiconductor component of claim 170 wherein the edge polymer layers and the back side have a same planar surface.

267. (previously presented) The semiconductor component of claim 170 wherein the edge polymer layers have a selected thickness which is different than a thickness of the first polymer layer.

268. (previously presented) The semiconductor component of claim 170 wherein the die comprises a tested and burned in die.

269. (previously presented) The semiconductor component of claim 170 wherein the die is contained on a semiconductor wafer having a polymer support dam proximate to edges thereof.

270. (previously presented) The semiconductor component of claim 170 wherein the second polymer layer comprises the underfill film, and the underfill film cures and planarizes at a temperature of about 200-250 °C, has a Young's modulus of about 4G Pascal, and a coefficient of thermal expansion (CTE) of about 33 parts per million per °C.

271. (previously presented) The semiconductor component of claim 170 wherein the second polymer layer comprises parylene.

Claim 272 (canceled)